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GRANT-IN-AID FOR FISHERIES Program Activities

1980

U.S. DEPARTMENT OF COMMERCE

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U.S. DEPARTMENT OF COMMERCE

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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
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GRANT-IN-AID FOR FISHERIES PROGRAM ACTIVITIES 1980

Prepared by
Grant-in-Aid Staff

Washington D. C.
March 1981

AUTHORIZATION

This report is submitted in compliance with the requirement of Section 9(a) of the Fish and Wildlife Act of 1956, as amended 16 U.S.C. 742d(7) and Section 2 of the Anadromous Fish Conservation Act of 1965, as amended 16 U.S.C. 757b.

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GRANT-IN-AID FOR FISHERIES

PROGRAM ACTIVITIES 1980

by

Grant-in-Aid Staff

INTRODUCTION

This is the 13th in a series of annual publications on program activities under the Grant-in-Aid for Fisheries Program of the Office of Resource Conservation and Management, National Marine Fisheries Service (NMFS).

Information presented in this report provides State program coordinators and administrators, Federal personnel, project personnel, and others concerned with research, development, conservation, and management of our fishery resources with a convenient reference to the grant-in-aid program. This publication will also facilitate planning, coordination, and integration of State, Federal, and other activities concerned with the fishery resources.

THE ACTS

The NMFS Grant-in-Aid Program is authorized under two Acts:

1. The Commercial Fisheries Research and Development Act of 1964 (Public Law 88-309 as amended) - Authorizes the Secretary of Commerce to cooperate with the 50 States, the Commonwealths of Puerto Rico and the Northern Mariana Islands, and the Governments of the Virgin Islands, Guam, and American Samoa, and the Trust Territory of The Pacific Islands in carrying out research and development of the Nation's commercial fisheries. Projects eligible for funding include research, development, construction, and coordination. Cost-sharing projects under subsection 4(a) are funded up to 75 percent level of Federal participation, whereas projects under subsection 4(b) to alleviate resource disaster and under subsection 4(c) to establish new commercial fisheries may be financed with 100 percent Federal funds. This Act would have expired June 30, 1973; however, it was extended by Public Laws 92-590, 95-53, and 96-62 for an additional 10 years or to September 30, 1983. The authorized levels are $10 million for subsection 4(a), $5 million for subsection 4(b) and $500,000 for subsection 4(c).

2. The Anadromous Fish Conservation Act of 1965 (Public Law 89-304 as amended) - Authorizes the Secretary of Commerce to enter into cooperative agreements with States and other non-Federal interests for the conservation, development, and enhancement of the anadromous fishery resources of the Nation and the fish in the Great Lakes that ascend streams to spawn and for the control of the sea lamprey. The program is administered at the Federal level jointly by the National Marine Fisheries Service and the U.S. Fish and Wildlife Service. Federal funds up to 50 percent may be used to finance project costs. State fishery agencies, colleges, universities, private companies, and other non-Federal interests in 31 States bordering the oceans and the Great Lakes may participate under the Act. All projects must be coordinated with the State fishery agency concerned. The authorization for this Act expired September 30, 1979, but was renewed in November, 1979, for an additional 3 years or to September 30, 1982. The new Act includes the following: (1) sets authorized levels at $11 million for fiscal year 1980, $13 million for fiscal year 1981, and $15 million for fiscal year 1982, (2) removes language which places the burden for costs of operation and maintenance of facilities constructed under multistate projects entirely on the States, (3) removes requirement that all title to lands acquired under the Act must rest in the Federal Government rather than with the State involved, (4) changes the amounts of funding a State may receive under Section 4(b) in any one year from $1 million to $1.25 million, and (5) initiates a 3-year emergency research and monitoring program to identify the reasons for the current decline in striped bass population.

APPORTIONMENT OF FEDERAL FUNDS BY STATE AND AUTHORIZATION

Distribution of Federal funds to the States and others under the National Marine Fisheries Service grant-in-aid for fisheries program (Public Law 88-309 and Public Law 89-304) in Fiscal Year 1980, is given in the following tabulation:

State and others	FY 1980	
	P.L. 88-309	P.L. 89-304
Alabama	$134,200	$40,290
Alaska	300,000	404,200
Arizona	25,000	
Arkansas	34,100	
California	300,000	271,200
Colorado	25,000	24,425
Connecticut	25,000	
Delaware	41,200	
Florida	300,000	
Georgia	82,500	11,500
Hawaii	37,600	
Idaho	50,700	
Illinois	25,000	
Indiana	25,000	
Iowa	25,000	
Kansas	25,000	
Kentucky	25,000	
Louisiana	300,000	
Maine	212,500	52,000
Maryland	193,500	35,775
Massachusetts	300,000	41,900
Michigan	25,000	45,700
Minnesota	25,000	
Mississippi	142,700	24,230
Missouri	25,000	
Montana	25,000	
Nebraska	25,000	
Nevada	25,000	
New Hampshire	53,500	60,000
New Jersey	148,500	
New Mexico	25,000	
New York	151,400	31,400
North Carolina	71,700	54,271
North Dakota	25,000	
Ohio	75,200	
Oklahoma	25,000	
Oregon	138,500	336,110
Pennsylvania	88,400	
Rhode Island	34,300	
South Carolina	30,000	30,509
South Dakota	25,000	
Tennessee	25,000	
Texas	300,000	
Utah	25,000	
Vermont	25,000	
Virginia	173,600	60,200
Washington	204,300	398,990
West Virginia	25,000	
Wisconsin	25,500	22,600
Wyoming	25,000	
American Samoa	101,100	
Guam	25,000	
Puerto Rico	300,000	
Virgin Islands	25,000	
Trust Territory of the Pacific Islands	25,000	
Northern Mariana Islands	25,000	
Pacific Marine Fisheries Commission	-	14,500
NW. Indian Tribes	-	40,200
TOTAL	$5,000,000	$2,000,000

CLASSIFICATION OF FEDERAL AND STATE FUNDS
BY ACTIVITY AND AUTHORIZATION

FISCAL YEAR 1980

Program activities cover various fields, including broad categories of research and development of commercial fisheries and conservation, development and enhancement of anadromous fishery resources. Sixty-one percent of the funds were used for research in such areas as the environment, freshwater finfish, marine finfish, and shellfish; 7 percent for operation and maintenance; 9 percent for construction programs; 6 percent for collection of statistics; 6 percent for extension service; less than 5 percent for each of the other program activities. Funding figures shown include both State and Federal dollars for all 1980 project segments.

Activity	Public Laws		Total	
	88-309 ($1,000)	89-304 ($1,000)	Dollars ($1,000)	Percent (Total)
Aquaculture	494	0	494	3.7
Construction	167	991	1,158	8.8
Fish landing facilities	7	0		
Fish screens and stream improvement facilities	110	0		
Hatcheries and hatchery facilities	0	991		
Laboratories	0	0		
Vessel	50	0		
Coordination	367	142	509	3.9
Disease and parasite control	141	70	211	1.6
Extension service	744	0	744	5.6
Market development	256	0	256	1.9
Operation and maintenance	114	781	895	6.8
Planning	101	0	101	.8
Research	4,156	3,926	8,082	61.3
Environment	134	0		
Finfish (freshwater)	502	158		
Finfish (marine)	1,801	3,768		
Shellfish	1,719	0		
Resource disaster projects	0		0	0
Statistics	732	0	732	5.6
TOTAL	7,272	5,910	13,182	100.0

PROJECT TITLES BY STATE AND PUBLIC LAW

WITH OTHER PERTINENT INFORMATION

FISCAL YEAR 1980

All 50 States, the Commonwealths of Puerto Rico and the Northern Mariana Islands, the Governments of American Samoa, Guam, the Virgin Islands, and the Trust Territory of the Pacific Islands, and certain Northwest Indian tribes are participating in the program under one or both authorizations. In FY 1980, 33 projects were completed at an estimated total cost (State and Federal dollars combined) of $8,555,000; 187 projects were initiated or are continuing at an estimated cost of $48,148,000. The average Federal share of the Public Law 88-309 projects, excluding funds for resource disasters, is 62 percent; the average Federal share of the Public Law 89-304 projects is 46 percent.

Tabulation of completed and continuing projects including total cost follows:

Public Law	Completed projects		Continued projects		Total projects	
	Number	Total cost	Number	Total cost	Number	Total cost
		$1,000		$1,000		$1,000
88-309	25	6,152	137	27,508	162	33,660
89-304	8	2,403	50	20,640	58	23,043
TOTAL	33	8,555	187	48,148	220	56,703

A list of continuing projects and those completed in 1980, under each authorization by State, including duration, date completed, and page reference for project narrative, is tabulated on pages 6 through 19. Under Public Law 88-309, project numbers identify the Region administering the project by the first digit, project number sequence within the Region by next digit(s), followed by a letter to denote activity as R-research, C-construction, D-development, and S-coordination. Under Public Law 89-304, the first two letters "AF" identify the project as anadromous fish, with next letter "C" for projects administered by NMFS, or "CS" for jointly funded projects with U.S. Fish and Wildlife Service (FWS) with NMFS as lead agency, and "SC" for jointly funded projects with FWS as lead agency, followed by a number sequence within each State.

Public Law	Project number and title		Date initiated	Duration	Estimated total cost	Date completed	Project narrative
			Year	Years	Dollars	Year	Page
	ALABAMA						
88-309	2-330-R.	Research and development of Alabama's coastal fisheries	1978	3	F-450,113 S-157,037		31
	2-351-D.	Restoration of oyster resources	1979	1	F-1,275,000 S 0	1980	37
89-304	AFCS-12.	Striped bass production and stocking experiments in Alabama coastal areas (Study No. 2)	1979	1	F-141,000 S-141,000 (Includes FWS share)		31
	AFC-13.	Increasing yield of striped bass fingerlings through intensive culture methods	1979	3	F-34-950 S-34,950		31
	ALASKA						
88-309	5-43-R.	Assessment of stream habitat and upland development-SE. Alaska	1979	5	F-361,500 S-190,000		29
	5-44-R.	King and tanner crab studies in Cook Inlet	1979	5	F-142,500 S- 83,000		34
	5-45-S.	Program coordination	1979	5	F-258,000 S-150,000		21
	5-47-R.	Investigations of life history and fishery for tanner crab in Alaska	1979	5	F-288,000 S-145,000		34
	5-48-R.	Pandalid shrimp studies-western Alaska	1979	5	F-330,000 S-200,000		35
89-304	AFC-57.	Chignik sockeye studies	1978	3	F- 50,400 S- 50,400		29
	AFC-58.	Program coordination	1977	5	F-271,500 S-403,500		21
	AFC-59.	Pink salmon stock prediction-SE. Alaska	1977	5	F-358,500 S-590,000		29
	AFC-60	Sockeye stock assessment and evaluation - SE. Alaska	1977	5	F-221,500 S-281,000		29
	AFC-61.	Copper River - Prince William Sound sockeye salmon catalog and inventory	1977	5	F-290,000 S-383,500		29
	AFC-62.	Investigations of Cook Inlet sockeye salmon	1977	5	F-471,500 S-674,500		29
	AFC-63.	Yukon River salmon studies	1977	5	F-262,000 S-337,000		29

Public Law	Project number and title		Date initiated	Duration	Estimated total cost	Date completed	Project narrative
			Year	Years	Dollars	Year	Page
AFC-64.		Norton Sound-Kotzebue salmon studies	1977	5	F-152,500 S-232,000		29
	AMERICAN SAMOA						
88-309	4-46-D.	Fisheries technical assistance	1979	3	F-249,800 S- 19,000		22
	4-47-D.	Statistical analysis of American Samoa fisheries	1979	3	F- 92,900 S- 8,300		37
	ARIZONA						
88-309	4-31-R.	Evaluation of pump generation operations in low elevation, hot desert reservoirs	1975	5	F- 95,002 S- 31,665	1980	25
	ARKANSAS						
88-309	2-304-R.	Survey and inventory of Arkansas' commercial fisheries	1977	3	F- 39,150 S- 13,050		37
	2-317-R.	Determine the feasibility of commercial fish production in sewage oxidation lagoons	1977	3	F- 13,125 S- 4,375		31
	2-338-R.	Impact of net pen fish culture on water quality and fish populations in Bull Shoals Reservoir	1978	2	F- 4,719 S- 1,573	1980	19
	2-344-R.	Intensive culture of grass carp in cages	1979	1	F- 17,040 S- 5,680	1980	19
	2-355-D.	Development of commercial fishermen access - St. Francis River at Market Tree	1979	1	F- 11,250 S- 3,750		20
	2-361-R.	Comparison of hybrid carp and grass carp with respect to food preference, food consumption and growth	1979	1	F- 18,723 S- 6,241		25
	CALIFORNIA						
88-309	4-42-S.	Program coordination	1979	2	F- 29,758 S- 9,918		21
	4-43-R.	Shellfish culture investigations	1979	2	F-180,960 S- 60,320		19
	4-44-D.	Fisheries monitoring, assessment, and evaluation	1979	2	F-270,193 S- 90,065		32
	4-45-D.	Demersal nearshore commercial invertebrate evaluation	1979	2	F-148,670 S- 49,556		32
89-304	AFC-12.	Ocean salmon study	1979	5	F-514,622 S-514,622		30
	AFCS-15.	Mad River hatchery operations	1979	5	F-617,115 S-617,115		24
	AFC-15.	Operation and maintenance of fish screens	1979	5	F-490,990 S-490,990		24

Public Law	Project number and title		Date initiated	Duration	Estimated total cost	Date completed	Project narrative
			Year	Years	Dollars	Year	Page
	COLORADO						
88-309	1-133-R.	Intensification of commercial fish culture	1977	4	F 123,000 S- 41,000		19
	CONNECTICUT						
88-309	3-278-R.	Commercial fishery monitoring program	1977	4	F- 83,470 S- 27,823		37
89-304	AFC-12.	Connecticut River shad study	1980	1	F- 29,500 S- 29,500		28
	DELAWARE						
88-309	3-280-D.	Technical assistance to commercial fisheries	1977	5	F-180,000 S- 60,000		22
	FLORIDA						
88-309	2-320-D.	Oyster cultivation by reef construction	1977	3	F- 64,750 S- 64,750		35
	2-336-D.	Fisheries extension and marketing services program	1978	5	F-819,732 S-273,245		23
	2-341-R.	Florida's marine resources research, development, and management program	1978	5	F-635,200 S-211,733		32
	GEORGIA						
88-309	2-319-R.	Studies and assessment of Georgia's fishery resources	1977	4	F-319,280 S-106,427		36
89-304	AFC-11.	Georgia commercial shad assessment	1979	1	F- 12,406 S- 12,406	1980	28
	GUAM						
88-309	4-42-D	Development of polyculture fish farming under tropical conditions	1979	1	F- 31,000 S- 31,944		19
	HAWAII						
88-309	4-40-D.	Development of finfish aquaculture industry	1978	3	F- 90,000 S- 90,000		19
	IDAHO						
88-309	1-143-R.	Test rearing of anadromous fish	1978	5	F-251,250 S- 83,750		30
	ILLINOIS						
88-309	3-291-R.	Identification of factors responsible for the decrease in production of fish food organisms in the Illinois and Mississippi Rivers	1978	3	F- 57,000 S- 19,215		25
	3-327-R.	Effects of three commercial harvesting methods on mussel beds	1979	3	F- 61,595 S- 21,331		34
	INDIANA						
88-309	3-283-R.	Yellow perch population characteristics in Lake Michigan	1977	3	F- 64,746 S- 21,492	1980	26

Public Law	Project number and title		Date initiated	Duration	Estimated total cost	Date completed	Project narrative
			Year	Years	Dollars	Year	Page
	3-336-R	Movement of yellow perch in Indiana waters of Lake Michigan	1980	3	F- 75,000 S- 74,728		26
	IOWA						
88-309	2-350-R.	Wing dam investigations	1979	4	F-108,116 S- 36,039		25
	KANSAS						
88-309	2-340-R.	Marketable fisheries investigations	1978	3	F-115,015 S- 38,339		26
	KENTUCKY						
88-309	2-334-R.	Asiatic clam commercial fishery evaluation	1978	2	F- 28,800 S- 9,600		33
	2-358-R.	The effect of controlled harvest on some biological characteristics of smallmouth buffalo in Rough River Lake, Kentucky	1979	2	F- 18,984 S- 6,328		25
	LOUISIANA						
88-309	2-318-R.	A survey of the recreational shrimp and finfish harvest of Vermillion Bay and impact on commercial fishery	1977	3	F-163,101 S- 54,367		36
	2-342-R.	A study of areal and seasonal availability of the American eel (Anguilla rostrata) in southeastern coastal Louisiana	1979	3	F-146,250 S- 48,750		32
	2-343-R.	An evaluation of gill nets of various mesh sizes	1979	2	F-156,079 S- 52,026		32
	2-348-D.	Rehabilitation of natural oyster seed grounds destroyed or damaged by a natural disaster	1979	1	F-1,000,000 S- 0	1980	37
	2-353-D.	Permanent monument for oyster lease surveying	1979	4	F-450,000 S-150,000		35
	2-354-C.	Coordination and data processing for Louisiana's Federal Aid program	1979	4	F-150,000 S- 50,000		21
	2-364-R.	A study of Gulf menhaden in Louisiana	1980	2	F-112,500 S- 37,500		32
	MAINE						
88-309	3-274-D.	Operation and maintenance of marine laboratory, West Boothbay Harbor, Maine	1976	3	F- 26,507 S- 26,508	1980	24
	3-300-R.	Lobster stock assessment	1978	3	F-182,017 S-182,017		34
	3-304-D.	Market and economic development	1979	3	F-120,000 S-120,000		23
	3-305-D.	Marine resources fisheries extension	1979	3	F- 65,625 S- 65,625		23

Public Law	Project number and title		Date initiated	Duration	Estimated total cost	Date completed	Project narrative
			Year	Years	Dollars	Year	Page
	3-315-S.	Coordination of research and development	1979	3	F-186,776 S- 62,259		22
	3-324-R.	Environmental physiology of northern shrimp (Pandalus borealis)	1979	1	F- 2,695 S- 2,695	1980	35
	3-329-D.	Operation and maintenance of marine laboratory	1979	3	F- 35,142 S- 35,143		24
	3-330-R.	Shrimp stock assessment	1979	1	F- 2,185 S- 2,185		35
	3-341-R.	Environmental physiology of northern shrimp (Pandalus borealis)	1980	2	F- 7,110 S- 7,110		35
89-304	AFC-17.	Development of anadromous fish resources	1975	5	F-210,000 S-210,000	1980	20
	AFC-20.	American shad enhancement and status of sturgeon stocks in Maine waters	1979	3	F- 76,500 S- 76,500		28
	AFC-21.	Population biology and management of the alewife in Maine	1979	3	F- 72,084 S- 72,084		28
	MARYLAND						
88-309	3-244-D.	Fisheries statistics	1975	5	F-437,715 S-437,715	1980	37
	3-310-R.	Marine animal disease investigations	1979	3	F- 89,637 S- 29,879		22
	3-325-D.	Maryland seafood marketing	1979	3	F- 90,367 S- 90,366		23
	3-326-D.	Maryland fisheries extension	1979	3	F-132,561 S- 44,187		23
	AFC-10.	Survey and inventory of anadromous fish spawning areas	1980	3	F-204,900 S-204,900		32
	AFC-11.	Assessment of larval striped bass, Morone saxatilis (Walbaum) stocks in Maryland waters (Emergency striped bass research study.)	1980	1	F- 65,797 S- 32,899		31
	MASSACHUSETTS						
88-309	3-194-D.	Collection, compilation, evaluation, and dissemination of commercial fisheries statistics	1973	7	F-290,717 S-101,757		38
	3-218-C.	Construction of marine research station	1974	10	F-250,000 S-250,000		21

Public Law	Project number and title		Date initiated	Duration	Estimated total cost	Date completed	Project narrative
			Year	Years	Dollars	Year	Page
	3-287-R.	Coastwide fishery resource assessment	1978	5	F-507,750 S-169,250		32
	3-288-D.	Shellfish technical assistance and management planning	1978	5	F-288,187 S- 96,062		23
	3-294-D.	Commercial fisheries extension service	1978	5	F-327,193 S-158,978		23
	3-303-D.	Massachusetts fisheries marketing program	1978	5	F-285,000 S- 95,000		23
	3-322-D.	Anadromous fisheries development	1979	?	F-108,000 S-108,000		20
89-304	AFCS-17.	Anadromous fish hatching and rearing station	1979	2	F-107,860 S-107,860		20
	MICHIGAN						
88-309	3-243-R.	Whitefish trap net selectivity study	1975	5	F- 86,800 S- 29,067	1980	26
89-304	AFC-13.	Assessment of underutilized anadromous fishes in the Great Lakes: Phase II	1978	1	F- 61,433 S- 61,433	1980	26
	AFC-14	Lake Erie walleye assessment	1980	3	F-147,122 S-147,122		26
	MINNESOTA						
88-309	3-289-R.	Lake Superior commercial fisheries assessment studies	1978	2	F- 46,250 S- 15,750		26
	3-316-R.	Leech culture study	1979	3	F- 35,700 S- 35,700		19
	MISSISSIPPI						
88-309	2-296-R.	Fishery monitoring and assessment	1977	3	F-375,810 S-125,270		32
	2-325-R.	Commercial fishes of Mississippi: spawning and miscellaneous biological factors	1978	3	F-158,070 S- 52,692		32
	2-327-R.	Selection of improved commercial traits in channel catfish	1978	4	F-44,000 S-14,667		19
	2-349-D.	Rehabilitation of natural oyster reefs destroyed or damaged by a natural disaster	1979	1	F-675,000 S- 0	1980	37
89-304	AFCS-7.	Striped bass restoration program Mississippi Gulf Coast	1979	3	F-129,000 S-129,000 (Includes FWS share)		31
	MISSOURI						
88-309	2-291-R.	Research and management of Missouri's commercial fisheries resources	1976	4	F- 51,378 S- 17,123	1980	38
	2-363-R.	Research and management of Missouri's commercial fisheries resources	1979	5	F-124,875 S- 41,625		38

Public Law	Project number and title		Date initiated	Duration	Estimated total cost	Date completed	Project narrative
			Year	Years	Dollars	Year	Page
	MONTANA						
88-309	1-123-R.	Establishment of aquatic baseline in large inland impoundment	1976	5	F- 157,382 S- 45,665		27
	NEBRASKA						
88-309	2-257-R.	Population dynamics of the commercial fishery resources of the unchannelized and stabilized Missouri River	1975	5	F- 89,981 S- 29,994		27
	2-359-R.	Population estimates of Missouri River fishes	1979	3	F- 42,375 S- 14,125		38
	2-360-R.	Inland commercial fisheries investigations	1979	3	F- 28,425 S- 9,475		38
	NEVADA						
88-309	4-27-R.	Control of whirling disease of salmonids	1977	2	F- 24,792 S- 8,263	1980	22
	4-41-D.	Rearing bait fish in western Nevada	1978	4	F- 85,970 S- 28,657		20
	NEW HAMPSHIRE						
88-309	3-275-R.	Pilot attempt to grow winter flounder commercially	1977	3	F- 66,000 S- 22,000	1980	20
	3-323-D.	Statistical data program for the marine fisheries of New Hampshire	1979	1	F- 39,750 S- 13,250	1980	38
89-304	AFC-4.	Operation and maintenance of the Milford hatchery	1977	3	F-240,000 S-240,000	1980	24
	AFC-5	Operation and maintenance of the Milford hatchery	1980	3	F-240,000 S-240,000		24
	NEW JERSEY						
88-309	3-271-R.	Research and inventory of shellfish within estuarine systems	1976	3	F- 59,288 S- 59,288	1980	36
	3-290-R.	Oyster drill control by hydraulic dredging in Delaware Bay	1978	3	F-179,713 S- 59,904		36
	3-319-R.	The effects of MSX disease on oyster production in Delaware Bay	1979	3	F- 72,000 S- 24,000		22
	3-332-R.	Inventory of New Jersey's estuarine shellfish resources	1979	5	F-192,072 S-192,072		36
	3-338-C.	Shellfish research vessel acquisition	1980	1	F- 25,000 S- 25,000		21
	3-340-D	Marine fisherman's coordination project	1980	4	F-112,500 S- 37,500		23
	3-342-R.	Monitoring environmental quality of previously studied estuarine systems	1980	3	F- 80,750 S- 40,250		24

Public Law	Project number and title		Date initiated	Duration	Estimated total cost	Date completed	Project narrative
			Year	Years	Dollars	Year	Page
89-304	AFC-3.	Status of the striped bass population in New Jersey (Emergency striped bass research study)	1980	1	F- 42,333 S- 21,167		31
	NEW MEXICO						
88-309	2-289-R.	Commercial fisheries research	1976	5	F- 78,934 S- 26,311		27
	2-366-R.	Intensive harvest of commercial species	1980		F- 90,000 S- 30,000		27
	NEW YORK						
88-309	3-292-R.	Growth, movement, mortality rates of American lobster in western Long Island Sound	1978	2	F- 90,435 S- 30,145	1980	34
	3-293-S.	Coordination	1978	3	F- 66,525 S- 22,175		22
	3-307-D.	Shellfish transplant in the marine district of New York State #3	1979	3	F-156,000 S-156,000		36
	3-308-D.	Operation of mobile laboratories for shellfish sanitation control #2	1979	3	F- 81,050 S- 81,050		36
	3-309-R.	Assessment of New York's shellfish resources	1979	3	F- 87,900 S- 87,900		37
	3-312-R.	Black sea bass retention and escapement in vented and unvented pots	1979	2	F- 10,450 S- 10,450		29
	3-333-R.	Movements, mortality rates and growth of the American lobster	1980	2	F- 37,600 S- 37,600		34
89-304	AFC-10.	A study of the striped bass in the marine district of New York #3	1979	3	F- 99,580 S- 99,580		31
	AFC-11.	Biology and management of striped bass in New York waters (Emergency striped bass research study.)	1980	2	F-186,000 S- 93,000		31
	NORTH CAROLINA						
88-309	2-314-R.	Use of seed oysters to supplement oyster production in southern North Carolina	1977	3	F- 47,487 S- 15,829	1980	35
	2-324-R.	Preliminary assessment of non-anadromous fishes in Albemarle Sound	1978	2	F- 71,212 S- 23,738		32
	2-326-R.	Stock assessment of adult fishes in Core Sound	1978	4	F- 29,402 S- 9,801		33
	2-345-R.	Net mesh selectivity in North Carolina's winter trawl fishery	1979	1	F- 35,190 S- 11,730		33
	2-362-R.	Preliminary North Carolina rock shrimp stock assessment	1979	1	F- 21,000 S- 7,000		36

Public Law	Project number and title		Date initiated	Duration	Estimated total cost	Date completed	Project narrative
			Year	Years	Dollars	Year	Page
89-304	AFCS-15.	Anadromous fish research program, Cape Fear River, Phase II	1977	2	F- 46,946 S- 46,946 (Includes FWS share)	1980	33
	AFCS-16.	North Carolina anadromous fisheries management program	1979	3	F-181,325 S-181,325		33
	AFC-17.	River herring spawning and water quality in Chowan River	1980	3	F- 37,500 S- 37,500		28
	AFC-18.	An investigation of size, age and sex of North Carolina striped bass (Emergency striped bass research study.)	1980	3	F- 79,334 S- 39,666		31
	NORTH DAKOTA						
88-309	1-146-R.	The biology of Diplostomum spathaceum (eye flukes) and its relationship to fishes of commercial value	1979	3	F- 22,500 S- 7,500		22
	1-147-R.	Jamestown reservoir commercial fishery investigations	1979	2	F- 10,875 S- 3,625		25
	1-148-R.	Garrison reservoir commercial fishery investigations	1979	2	F- 11,250 S- 3,750	1980	26
	OHIO						
88-309	3-298-R.	Yellow perch parasite research	1978	3	F- 50,310 S- 16,770		22
	3-301-R.	Commercial fishing: gear mortality	1978	3	F-145,125 S- 48,375		27
	3-318-R.	Management of Muskingum River mussel populations	1979	2	F- 82,500 S- 27,500		34
	OKLAHOMA						
88-309	2-301-R.	Commercial fishery statistics #2	1977	4	F- 8,460 S- 2,820		38
	2-302-R.	Flathead catfish study	1977	4	F- 74,252 S- 24,751		26
	2-337-R.	Commercial lake monitoring study	1978	4	F- 20,405 S- 6,802		27
	OREGON						
88-309	1-150-R.	Commercial clam production	1979	2	F- 69,925 S- 20,995		34
	1-151-R.	Groundfish-shrimp assessment	1979	3	F-402,360 S-134,120		33
89-304	AFC-92.	Chinook salmon maturity evaluation	1978	3	F- 50,450 S- 5,450		30

Public Law	Project number and title		Date initiated	Duration	Estimated total cost	Date completed	Project narrative
			Year	Years	Dollars	Year	Page
	AFC-98	Infectious disease program for salmon and steelhead trout hatcheries	1980	3	F-115,615 S-115,615		22
	AFC-99.	Management of the troll salmon fishery	1980	3	F-116,335 S-116,335		30
	AFC-100.	Identification of salmon stocks in Oregon	1980	3	F-165,832 S-165,832		30
	AFC-102.	Research and development of Oregon's coastal fish stocks	1980	3	F-651,500 S-651,500		30
	PENNSYLVANIA						
88-309	3-242-R.	Guidelines for economical hatchery wastewater treatment system	1975	5	F-236,678 S- 78,893	1980	25
	3-272-C.	Construction of wet lab-Benner Spring research station	1976	5	F- 50,000 S-150,000		21
	3-284-R.	Annual assessment of select commercial fish stocks, yield, biological productivity, and year class development in eastern Lake Erie	1977	3	F-155,292 S- 51,764	1980	27
	3-337-R.	Guidelines for effective management of commercial fish hatchery wastewater treatment systems	1980	5	F-235,511 S- 78,504		25
	3-339-R.	Lake Erie commercial fishery investigations	1980	3	F-167,031 S- 55,677		27
	PUERTO RICO						
88-309	2-331-R.	Commercial fisheries statistics	1978	4	F-413,500 S-137,833		38
	2-332-R.	Maintenance and operation of the commercial fisheries laboratory	1978	4	F-156,000 S-156,000		24
	2-333-R.	Monitoring and assessment of Puerto Rico's commercial fisheries	1978	4	F-532,000 S-177,333		33
	2-356-C.	Coordination and administration Puerto Rico's Public Law 88-309 Program	1979	4	F-120,000 S- 40,000		22
	RHODE ISLAND						
88-309	3-302-D.	Lobster logbook and statistical analysis	1979	3	F- 52,500 S- 52,500		38
	3-313-R.	Coastal fishery resource assessment	1979	3	F- 74,250 S- 24,750		33
	3-320-R.	Evaluation of otter trawl induced losses in the Rhode Island inshore lobster fishery	1979	1	F- 7,000 S- 7,000		34

Public Law	Project number and title		Date initiated	Duration	Estimated total cost	Date completed	Project narrative
			Year	Years	Dollars	Year	Page
89-304	AFC-2.	Fish ladder construction	1974	7	F- 89,967 S- 89,967		20
	SOUTH CAROLINA						
88-309	2-357-R.	South Carolina fisheries statistics program (FY 1980-81-82)	1979	3	F- 127,325 S- 42,442		39
89-304	AFC-8.	Monitoring and assessment of the S.C. commercial fishery for shad (FY 1980-81)	1979	2	F- 75,800 S- 75,800		28
	SOUTH DAKOTA						
88-309	1-131-R.	Commercial catfish cage culture in northern powerplant cooling pond	1977	3	F- 13,725 S- 4,575		20
	1-155-R.	Commercial production of food fishes in S.D. ponds	1980	2	F- 36,000 S- 12,000		19
	TENNESSEE						
88-309	2-346-R.	Commercial fish harvest inventory	1979	1	F- 3,475 S- 1,158		27
	2-347-R.	Hormonal control of reproduction in fishes	1979	1	F- 25,000 S- 8,333		20
	TEXAS						
88-309	2-310-R.	Finfish harvesting studies in Texas estuaries	1977	4	F-682,287 S-227,429		39
	2-311-R.	Commercial fisheries catch statistics	1977	4	F-112,879 S- 37,627		39
	2-312-R.	Shrimp and finfish investigations in the northwest Gulf	1977	4	F-231,062 S- 77,021		37
	2-328-R.	Studies of shrimp populations in selected coastal bays of Texas	1978	3	F-166,875 S- 55,625		36
	2-352-D.	Rehabilitation of public oyster reefs damaged or destroyed by a natural disaster	1979	1	F-624,000 S- 0	1980	37
	UTAH						
88-309	1-149-R	Physiological/genetic studies of trout strains in commercial and agency hatcheries	1979	2	F- 71,800 S- 28,945		22
	1-156-R.	Potential of Utah chub to support a bait fish industry	1980	3	F- 31,037 S- 10,980		25
	VERMONT						
88-309	3-241-D.	Commercial potential of Vermont fisheries resources	1975	5	F-137,295 S- 91,113		27
	VIRGIN ISLANDS						
88-309	2-335-R.	Commercial fisheries research and development in the U.S. Virgin Islands	1978	5	F-125,205 S- 41,735		33

Public Law	Project number and title		Date initiated	Duration	Estimated total cost	Date completed	Project narrative
			Year	Years	Dollars	Year	Page
	VIRGINIA						
88-309	3-265-R.	Present and potential productivity of Baylor Grounds	1976	4	F-180,969 S-180,968		35
	3-295-D.	Virginia commercial fisheries statistics collection and dissemination	1979	2	F- 71,980 S- 35,825	1980	39
	3-296-D.	Virginia seafood marketing	1978	2	F- 60,000 S- 20,000	1980	23
	3-314-D.	Development of oyster resources	1979	3	F-150,000 S-150,000		35
	3-321-D.	Fisheries profiles and plans	1979	3	F-228,153 S- 76,051		24
	3-334-D.	Virginia seafood market development	1980	2	F- 60,000 S- 20,000		24
	3-335-D.	Commercial finfish and shellfishery statistical collection	1980	2	F- 92,770 S- 30,923		39
89-304	AFCS-9.	Biology and management of mid-Atlantic anadromous fishes under extended jurisdiction	1976	3	F-577,954 S-288,976	1980	28
	AFC-10.	Anadromous fisheries research program	1979	3	F-311,805 S-311,805		28
	AFC-11.	Assessment of larval striped bass stocks in Virginia waters (Emergency striped bass research study.)	1980	3	F-226,766 S-113,383		31
	AFC-12.	Relative recruitment estimates for striped bass from three Virginia rivers (Emergency striped bass research study.)	1980	2	F- 18,000 S- 9,000		31
	WASHINGTON						
88-309	1-127-R.	Marina criteria revision study	1976	5	F-215,380 S- 71,793		25
	1-134-R.	Marine fish coastal fisheries analysis	1977	4	F- 68,435 S- 22,812		22
	1-135-R.	Coastal dungeness crab project	1977	4	F-117,687 S- 39,230		34
	1-136-R.	Pacific cod, lingcod, rockfish assessment	1977	5	F-163,352 S- 54,452		29

Public Law	Project number and title		Date initiated	Duration	Estimated total cost	Date completed	Project narrative
			Year	Years	Dollars	Year	Page
	1-141-R.	Japanese literature review	1978	2	F- 12,000 S- 4,000	1980	23
	1-142-R.	Improved techniques for use with domestic oysters	1978	3	F- 60,254 S- 20,085		35
	1-144-R.	Shellfish enhancement project	1979	3	F-205,069 S- 68,356		20
	1-145-R.	Pacific cod, lingcod, and rockfish age determination	1979	3	F- 40,022 S- 13,341		29
	1-152-R.	South coast marine fish/ shellfish monitoring	1979	3	F- 57,750 S- 19,250		37
	1-153-R.	Juan de Fuca herring surveys	1979	1	F- 45,000 S- 15,000		28
	1-154-R.	Coastal pink shrimp study	1979	4	F- 39,181 S- 13,061		36
89-304	AFC-79.	Wild chinook salmon tagging and fluorescent marking	1976	4	F- 21,500 S- 21,500	1980	30
	AFC-84.	Development of a spawning gravel cleaning machine	1977	4	F-137,315 S-137,315		30
	AFC-86.	Hood Canal salmon studies	1977	3	F- 46,435 S- 46,435		30
	AFC-87.	Recovery and published results of coded-wire tags recovered in Washington's fisheries	1978	4	F-180,000 S-180,000	1980	30
	AFC-90.	Washington ocean salmon comprehensive sampling program	1978	5	F-242,500 S-242,500		30
	AFC-94.	Hupp Springs Pond	1978	2	F-168,000 S-168,000	1980	21
	AFCS-95.	Hoh River salmon enhancement	1978	3	F- 95,517 S- 95,517		21
	AFC-96.	Salmon-herring predator/ competitor interactions	1978	2	F- 20,350 S- 20,350	1980	33
	AFC-97.	Big Beef Creek chum production assessment	1980	3	F-149,310 S-149,310		30
	AFCS-101.	Stillaguamish River chum	1979	2	F- 65,138 S- 69,767		21
	AFCS-103.	Freshwater salmon production evaluation	1979	5	F-276,880 S-276,880		30
	AFSC-104.	Development of Cedar River sockeye and chinook enhancement facility	1979	3	F-1,255,000 S-1,362,000 (Includes FWS share.)		21

Public Law	Project number and title		Date initiated	Duration	Estimated total cost	Date completed	Project narrative
			Year	Years	Dollars	Year	Page
	AFCS-105.	Lummi Indian chum hatchery	1980	1	F- 48,500 S- 48,500 (Includes FWS share.)		21
	WEST VIRGINIA						
88-309	3-273-R.	Commercial fishery investigations	1976	5	F- 40,500 S- 13,500		27
	3-311-R.	Ohio River commercial bait minnow investigations	1979	3	F- 37,500 S- 12,500		25
	WISCONSIN						
88-309	3-299-R.	Quota-controlled chub fishery for Wisconsin waters of Lake Michigan	1978	3	F- 83,215 S- 27,738		27
89-304	AFC-15.	Rehabilitation of Green Bay walleye fishery	1979	3	F- 97,500 S- 97,500		26
	WYOMING						
88-309	1-129-R.	Dynamics and commercial potential of sucker populations in western impoundments	1977	4	F- 76,000 S- 25,333		27

PROGRAM ANALYSIS

For program analysis, projects are grouped under the type of activity undertaken rather than by State or Public Law. In doing so, the reader has all projects for the 1980 segment of the program, such as construction, coordination, planning, or research, in one section.

Under each type of activity included are project identification, principal investigator, 1980 project segment cost, State and Federal. If projects were continued in 1980 with prior year funds, or completed in 1980, no cost is indicated below.

Request for additional information about a project or for reprints of reports resulting from the work should be made to the appropriate NMFS Regional Office, State agency, or Cooperator. The Regional Offices, State agencies, and Cooperators, including addresses, are listed on pages 41-44.

AQUACULTURE

Arkansas 2-338-R — Scott Henderson — Completed 1980

Impact of net pen fish culture on water quality and fish populations in Bull Shoals Reservoir - Measure the impact of the caged fish feeding project in the immediate area of cages as related to water quality by contrasting it with an area outside the feeding area.

Arkansas 2-344-R — Scott Henderson — Completed 1980

Intensive culture of grass carp in cages - Determine what size white amur can be grown using cage culture in a 215-day period.

California 4-43-R — Earl E. Ebert — F-123,322 S- 41,107

Shellfish culture investigations - Develop mass culture techniques for dungeness crab, pismo clam, and red abalone.

Colorado 1-133-R — R. J. Anderson — F- 25,500 S- 8,500

Intensification of commercial fish culture - Culture freshwater bass with use of grass carp to control aquatic vegetation.

Guam 4-42-D — Harry Kami — F- 25,000 S- 26,665

Development of polyculture fish farming under tropical conditions - Increase production of prawns and other species on island for domestic and export markets.

Hawaii 4-40-D — Takuji Fujimura — F- 30,000 S- 30,000

Development of finfish aquaculture industry - Improve techniques for mass production of channel catfish fingerlings.

Minnesota 3-316-R — Floyd A. Hennagir — F- 11,900 S- 11,900

Leech culture study - Develop pond culture techniques for the leech, Nephelopsis obscura, to enable live bait dealers to rear this species.

South Dakota 1-155-R — Dr. Charles Scalet — F- 19,548 S- 6,516

Commercial production of food fishes in South Dakota ponds - Determine the feasibility of culturing annual crops of channel catfish and rainbow trout in eastern South Dakota dugouts.

Mississippi 2-327-R — Roland E. Reagan, Jr. — F- 11,000 S- 3,666

Selection of improved commercial traits in channel catfish - Select a crossbred domestic strain of channel catfish for rapid gain, fat content, and dress-out percentage.

Nevada 4-41-D — Robert E. L. Taylor — F- 25,000 S- 8,333

Rearing baitfish in western Nevada - Determine supply and demand for baitfish used in western Nevada and develop techniques for culture of minnows.

New Hampshire 3-275-R — Philip J. Sawyer — Completed 1980

Pilot attempt to grow winter flounder commercially - Incubate eggs and rear winter flounder through larvae metamorphosis to marketable size.

South Dakota 1-131-R — Garry P. Wheeler — F-814 S-271

Commercial catfish cage culture in northern powerplant cooling pond - Determine if the Big Stone Power Plant in Grant County is suitable for catfish cage culture and determine if cage culture is economically feasible.

Tennessee 2-347-R — Bill A. Simco — F- 5,510 S- 1,837

Hormonal control of reproduction in fishes - Correlate annual pituitary cell activity with gonadal state and determine if injections of pituitary hormones can stimulate maturation of gonads in channel catfish independent of season.

Washington 1-144-R — Ron Westley — F- 58,158 S- 19,386

Shellfish enhancement project - Develop techniques for culture of mussels and other shellfishes (scallops, shrimp, abalone) not commercially available in Washington State.

CONSTRUCTION

FISH LANDING FACILITIES

Arkansas 2-355-D — Jim Collins — F- 4,935 S- 1,645

Development of commercial fishermen access - St. Francis River at Market Tree - Construct a concrete boat launching ramp and a parking lot and improve the road to be used by commercial fishermen.

FISH SCREENS AND STREAM IMPROVEMENT FACILITIES

Maine AFC-17 — Lewis N. Flagg — Completed 1980

Development of anadromous fish resources - Increase the distribution and abundance of anadromous fish resources through development of fish passage facilities or removal of obstructions to fish migration.

Massachusetts 3-322-D — Joseph DiCarlo — F- 55,000 S- 55,000

Anadromous fisheries development - Construct, improve, and maintain fish passage facilities in selected coastal watersheds. Also, transplant prespawning adult shad and alewives to locations where new runs are being established or depleted runs augmented.

Rhode Island AFC-2 — John Stolgitis — F- 0 S- 0

Fish ladder construction - Construct fish passage facilities on Forge Road and Potowomut Pond Dams, Hunts River, and North Kingston—East Greenwich and Bradford Dam on the Pawcatuck River.

HATCHERIES AND HATCHERY FACILITIES

Massachusetts AFCS-17 — David S. Fredenburgh — F- 42,835 S- 42,835

Anadromous fish hatching and rearing station - Increase hatchery production capabilities for coho salmon smolts and sea-run brown trout.

Washington AFC-94 — Russell Webb — Completed 1980

Hupp Springs Pond - Construct a satellite salmon rearing station to supplement the State's Minter Creek hatchery production by 20,000 pounds of chinook and chum salmon.

Washington AFCS-95 — Richard Mattson-Hoh Tribe — F- 90,517 S- 90,517

Hoh River salmon enhancement - Construct a tribal chum salmon hatchery on lower Chaloot Creek to produce 4.5 million fry annually.

Washington AFC-101 — Terry Martin-Stillaguamish Tribe — F- 65,138 S- 65,138

Stillaguamish River chum restoration - Expand tribal incubation and rearing facility on Armstrong Creek to accommodate 500,000 native chum fry reared to 400/lb.

Washington AFSC-104 — Donald Bartlett — F-276,820 S-276,820

Development of Cedar River sockeye and chinook enhancement facility - construct a natchery, rearing station, fish ladder and caretaker's facilities on the Cedar River near Landsburg Dam.

Washington AFCS-105 — Steve Sevmour — F- 19,950 S- 19,950

Lummi Indian chum hatchery - Improve existing rearing pond and install NOPAD fish incubators at the Lummi hatchery.

LABORATORIES

Massachusetts 3-218-C — Arthur P. Chesmore — F- 0 S- 0

Construction of marine research station - Construct a marine research station which will provide central facilities for personnel now located at several temporary installations on Cape Cod.

Pennsylvania 3-272-C — Wibert F. Hobbs — F- 0 S- 0

Wet Lab - Benner Springs research station - Build a lab for research on fish diseases, propagation techniques, fish nutrition, and waste products.

VESSEL

New Jersey 3-338-C — Thomas McCloy — F- 25,000 S- 25,000

Shellfish research vessel acquisition - To acquire a 32-foot dredge boat for monitoring the New Jersey estuarine shellfish populations.

COORDINATION

Alaska 5-45-S — Gary Finger — F- 72,200 S- 24,100

Program Coordination - Administration of Public Law 88-309 projects.

Alaska AFC-58 — Gary Finger — F- 57,700 S- 84,100

Program coordination - Administration of Public Law 89-304 projects.

California 4-42-S — Eugene Fleming — F- 17,545 S- 5,849

Program coordination - Administration of Public Law 88-309 projects.

Louisiana 2-354-C — William S. Perret — F- 36,000 S- 12,000

Coordination and data processing for Louisiana's Federal aid program - Provide supervision and administration over all commercial fisheries research and development projects and provide electronic processing and analysis for research data collected on these projects.

Maine 3-315-S — Richard P. Choate — F- 65,793 S- 21,932

Coordination of research and development - Administer Maine's Public Law 88-309 program.

New York 3-293-S — Samuel L. Finkelstein — F- 15,700 S- 15,700

Coordination - Administer Public Law 88-309 projects.

Puerto Rico 2-356-C — Jose A. Suarez-Caabro — F- 43,035 S- 14,345

Coordination and administration - Administer Puerto Rico's Public Law 88-309 program.

Washington 1-134-R — Alan Millikan — F- 16,738 S- 5,580

Marine fish coastal fisheries analysis - Coordinate WDF activities and participation in marine fisheries American-Canadian negotiations.

DISEASE AND PARASITE CONTROL

Maryland 3-310-R — Sara V. Otto — F- 33,996 S- 11,332

Marine animal disease investigations - Determine distribution and intensity of disease affecting several species of marine animals in Chesapeake Bay and its tributaries.

Nevada 4-27-R — Robert E. L. Taylor — Completed 1980

Control of whirling disease of salmonids - Investigate the life cycle of Myxosoma cerebralis, the cause of whirling disease and use these and other research findings as a basis for control.

New Jersey 3-319-R — Harold H. Haskin — F- 24,000 S- 8,000

Effects of MSX disease on oyster production in Delaware Bay - Provide continuing information on the fluctuation, prevalence, and intensity of MSX disease in Delaware Bay and on resultant oyster stock mortalities.

North Dakota 1-146-R — Harry L. Hollaway — F- 7,500 S- 2,500

Biology of Diplostomum spathaceum and its relationships to fish of commercial value - Determine incidence and effects of eye flukes on North Dakota reservoir fish.

Ohio 3-298-R — John L. Crites — F- 18,750 S- 6,250

Yellow perch parasite research - Study impact of parasites upon growth and survival of yellow perch.

Oregon AFC-98 — John Conrad — F- 34,929 S- 34,929

Infectious disease program for salmon and steelhead hatcheries - Monitor fish condition and investigate epizooties to identify pathogens and prescribe control measures.

Utah 1-149-R — Charles Berry — F- 21,020 S- 7,470

Physiological/genetic studies of trout strains in commercial and agency hatcheries - Evaluate rainbow trout strains and rough fish for survival and disease resistance.

EXTENSION SERVICE

American Samoa 4-46-D — Henry Sesepasara — F-96,000 S- 0

Fisheries technical assistance - Provide training and advisory services to local fishermen.

Delaware 3-280-D — Charles A. Lesser — F- 55,320 S- 18,440

Technical assistance to commercial fisheries - Provide technical assistance to commercial fishermen, seafood industries, and governmental authorities regarding the management, enforcement, and dissemination of data pertaining to commercial fisheries.

Florida 2-336-D — Sally S. Patrenos — F-186,173 S- 62,058

Fisheries extension and marketing services program - Initiated extension program designed to teach professional foods people the techniques of fish cookery; proper handling, storing, and preparing fish; and ways to maintain and expand consumer demand for fishery products.

Maine 3-305-D — Kenneth A. Honey — F- 25,927 S- 25,928

Maine resources fisheries extension - Provide technical expertise and assistance to fishery research and management programs, and assist the fishing industry in developing ways to harvest and process renewable marine resources.

Maryland 3-326-D — F. William Sieling III — F- 44,187 S- 20,813

Maryland fisheries extension - Disseminate scientific and technological information to the fishing industry and legislative officials, encourage the use of underutilized species of seafood in Maryland waters, and promote the planting of hatchery-reared seed oysters and hard clams.

Massachusetts 3-288-D — John M. Hickey — F- 48,263 S- 16,087

Shellfish technical assistance and management planning - Give the shellfish industry technical assistance in modern ways of culturing and harvesting important shellfish along the Massachusetts coast.

Massachusetts 3-294-D — Jay Wennemer — F- 67,117 S- 32,611

Massachusetts commercial fisheries extension service - Provide all segments of the Massachusetts fishing industry with information and technical assistance.

New Jersey 3-340-D — William Figley — F- 33,750 S- 11,250

Marine fisherman's coordination project - Provide the mechanism for the efficient dissemination of new commercial fishing technology, legislation and regulations, and results of pertinent scientific investigations to the commercial fishing community and the general public.

Washington 1-141-R — R. E. Westley — Completed 1980

Japanese literature review - Translate available knowledge on aquaculture.

MARKET DEVELOPMENT

Maine 3-304-D — Michael Moser — F- 40,000 S- 40,000

Market and economic development - Increase sales of underutilized species, expand existing markets, and inform consumers and institutional buyers regarding the harvesting, processing, availability, and nutritional value of seafood products.

Maryland 3-325-D — Gordon P. Hallock — F- 30,123 S- 30,122

Maryland seafood marketing - Alleviate supply and demand imbalances, assist the seafood industry in development of new products, assist in development of an automated oyster shucking machine, and encourage utilization of Maryland seafood by institutional mass feeders.

Massachusetts 3-303-D — Neil Murphy — F- 57,000 S- 19,000

Massachusetts fisheries marketing program - Increase production and consumption of quality Massachusetts seafood products, foster interest in underutilized species, and increase seafood industry participation and support of fisheries marketing program.

Virginia 3-296-D — Sandy Eridgman — Completed 1980

Virginia seafood marketing - Educate and inform consumers and volume feeders about the availability, economy, and nutritional values of Virginia fishery products.

Virginia 3-334-D — J. Keith Porter — F- 30,000 S- 10,000

Virginia seafood market development - Educate and inform consumers and volume feeders about the availability, economy, and nutritional values of Virginia fishery products.

OPERATION AND MAINTENANCE

California AFCS-15 — Robert D. Will — F-246,846 S-246,846

Mad River fish hatchery operations - Operate and maintain the Mad River fish hatchery to enhance north coastal fisheries for steelhead and salmon.

California AFC-16 — Jerome R. Staley — F-83,803 S-83,803

Operation and maintenance of fish screens - Operate and maintain fish screens constructed under Public Law 89-304.

Maine 3-274-D — Kenneth Honey — Completed 1980

Operation and maintenance of marine laboratory, West Boothbay Harbor, Maine - Provide the manpower necessary for the physical operation of the laboratory building as well as effecting necessary repairs and maintenance.

Maine 3-329-D — Kenneth Honey — F- 11,972 S- 11,973

Operation and maintenance of marine laboratory, West Boothbay Harbor Maine - Provide the manpower necessary for the physical operation of the laboratory building as well as effecting necessary repairs and maintenance.

New Hampshire AFC-4 — Charles F. Thoits III — Completed 1980

Operation and maintenance of the Milford hatchery - Provide the personnel, feed, medication, transportation, and other activities necessary for the hatching and rearing to smolt size of approximately 500,000 anadromous salmonids.

New Hampshire AFC-5 — Charles F. Thoits III — F- 60,000 S- 60,000

Operation and maintenance of the Milford hatchery - Provide the personnel, feed, medication, transportation, and other activities necessary for the hatching and rearing to smolt size of approximately 500,0000 anadromous salmonids.

Puerto Rico 2-332-R — Jose A. Suarez-Caabro — F- 59,942 S- 29,971

Maintenance and operation of the commercial fisheries laboratory - Maintain the Mayaguez commercial fisheries laboratory.

PLANNING

Virginia 3-321-D — Daniel J. Lonergan — F- 75,822 S- 25,274

Fisheries profiles and plans - Assemble known biologic, economic, and sociologic data as they relate to the commercial fisheries on a species by species basis and implement a grid system mapping the subaqueous land of Virginia.

RESEARCH

ENVIRONMENT

Estuarine:

New Jersey 3-342-R — John F. McClain — F- 26,250 S- 8,750

Monitoring environmental quality of previously studied estuarine systems - Monitor environmental parameters of the Mullica-Great Bay and upper Barnegat Bay estuaries to determine whether the systems' quality is improving, declining, or remaining static.

Freshwater:

Arizona 4-31-R — W. L. Minckley — Completed 1980

Evaluation of pump-generation operations in hot-desert reservoirs - Study thermal and nutrient loading of reservoirs subject to pump-generation operations.

Illinois 3-291-R — Richard E. Sparks — F- 17,425 S- 5,808

Identification of factors responsible for the decreased production of fish food organisms in the Illinois and Mississippi Rivers - Use fingernail clams to study the effects of ammonia on production of fish food organisms.

Iowa 2-350-R — Don Bohneay — F- 25,000 S- 8,333

Wing dam investigations - Develop a strategic plan to recommend construction and modification of wingdams compatible with fisheries integrity.

Pennsylvania 3-242-R — E. R. Miller — Completed 1980

Guidelines for economical hatchery wastewater treatment system - Evaluate different types of wastewater treatment systems to assist the commercial fish growers.

Pennsylvania 3-337-R — Delano R. Graff — F- 31,715 S- 10,571

Guidelines for effective management of commercial fish hatchery wastewater treatment systems - Evaluate different types of wastewater treatment systems to assist the commercial fish growers.

Washington 1-127-R — Rick D. Cardwell — F- 0 S- 0

Marina criteria revision study - Obtain biological and water quality data for revision of criteria on marinas.

FINFISH (FRESHWATER)

Baitfish:

Utah 1-156-R — Charles Berry — F- 12,111 S- 4,320

Potential of the Utah chub to support a baitfish industry in Utah - Analyze the impact on fishery resources of the Utah chub and determine present and future demand in the bait fish industry in Utah.

West Virginia 3-311-R — Larry A. Nielsen — F- 16,000 S- 6,240

Ohio River commercial bait minnow investigations - Determine commercial potential, economic feasibility, and harvest methodology for bait fisheries on the Ohio River.

Buffalofish and carp:

Arkansas 2-361-R — William Keith — F- 9,122 S- 3,042

Comparison of hybrid carp and grass carp with respect to food preference, food consumption, and growth - Ascertain food consumption and preference differences of the hybrid carp and grass carp for two aquatic vegetation types.

Kentucky 2-358-R — James R. Axon — F- 9,125 S- 3,042

The effect of controlled harvest on some biological characteristics of smallmouth buffalo in Rough River Lake, Kentucky - Evaluate the influence of commercial harvest upon some biological characteristics of underutilized species.

North Dakota 1-147-R — John Owen — F- 6,750 S- 2,250

Jamestown reservoir commercial fishery investigations - Determine the commercial potential and harvesting techniques for carp, buffalofish, white suckers, black bullhead, and yellow perch.

Catfish and bullhead:

North Dakota 1-148-R — John Owen — Completed 1980

Garrison reservoir commercial fishing investigations - Determine the commercial potential of black bullheads in Lake Audubon, North Dakota.

Oklahoma 2-302-R — Charles R. Wallace — F- 16,927 S- 5,642

Flathead catfish study - Assess flathead catfish stocks and determine status as a commercial and sport species.

Walleye:

Michigan AFC-14 — Robert Haas — F- 46,248 S- 46,248

Lake Erie walleye assessment - To determine the distribution and harvest of walleye stocks in western Lake Erie.

Wisconsin AFC-15 — Lee Kernen — F- 32,500 S- 32,500

Rehabilitation of Green Bay walleye fishery - Evaluate success of stocked fingerling and fry walleyes and double the existing standing stock through planting and curtailment of harvest.

Whitefish:

Michigan 3-243-R — R. L. Eshenroder — Completed 1980

Whitefish trap net selectivity study - Determine optimum mesh size for harvesting gear and assess whitefish populations in northern Lake Michigan by target fishing and monitoring net-run samples from commercial impoundment gear.

Yellow perch:

Indiana 3-283-R — Thomas S. McComish — Completed 1980

Yellow perch population characteristics in Lake Michigan - Determine an index of monthly abundance using a bottom trawl according to year class, size group, sex, and location.

Indiana 3-336-R — Thomas S. McComish — F- 25,000 S- 24,728

Movements of yellow perch in Indiana waters of Lake Michigan - Determine, through tagging, seasonal distribution of yellow perch by size, age, sex, maturity, temperature and depth.

Others:

Kansas 2-340-R — Robert Hartmann — F- 25,000 S- 8,333

Marketable fisheries investigations - Determine the biological effects of marketable fish harvest on fish communities in Kansas reservoirs, and recommend commercial fisheries management practices for Kansas reservoirs.

Michigan AFC-13 — Myrl Keller — Completed 1980

Assessment of underutilized anadromous fishes in the Great Lakes - Phase II - Study biology and stock dynamics of smelt, suckers, alewives, burbot, and white bass in Lakes Michigan, Huron, and Erie and develop fishing gear for selectively assessing these stocks.

Minnesota 3-289-R — John Spurrier — F- 15,750 S- 5,250

Lake Superior commercial fisheries assessment studies - Determine the condition of lake trout and other commercial fish stocks and progress of sea lamprey control.

Montana 1-123-R — James E. Liebelt — F- 25,000 S- 8,333

Establishment of aquatic baselines in large inland impoundment - Assess the commercial, game, and forage fish stocks and water quality in impoundment on Missouri River.

Nebraska 2-257-R — Mel Taylor — F- 4,912 S- 1,637

Population dynamics of the commercial fishery resources of the unchannelized and stabilized Missouri River - Evaluate the population levels of several species to determine the level of exploitation to maintain viable fish populations.

New Mexico 2-289-R — Warren J. McNall — F- 12,500 S- 4,167

Commercial fisheries research - Determine the harvest of bullheads, suckers, carp, and white perch and identify market outlets.

New Mexico 2-366-R — Warren J. McNall — F- 12,500 S- 4,167

Intensive harvest of commercial species - Determine the effect of intensive harvest of white suckers on the fish populations in trout lakes.

Ohio 3-301-R — Michael R. Rawson — F- 37,275 S- 12,425

Commercial fishing: gear mortality - Determine the effects of season, area, catch size, and net time on immediate mortality of commercial gear net released fishes and develop management proposals.

Oklahoma 2-337-R — Harold Namminga — F- 5,578 S- 1,859

Commercial lake monitoring study - Monitor fish populations in lakes undergoing commercial harvest in Oklahoma.

Pennsylvania 3-284-R — Roger Kenyon — Completed 1980

Annual assessment of select commercial fish stocks, yield, biological productivity and year class development in eastern Lake Erie - Investigate year class fluctuations and early life histories of yellow perch, smelt, drum, whitefish, and walleye, and monitor the Lake Erie ecosystem.

Pennsylvania 3-339-R — Roger Kenyon — F- 51,860 S- 17,286

Lake Erie commercial fishery investigations - Investigate year class fluctuations and early life histories of yellow perch, smelt, drum, whitefish, and walleye.

Tennessee 2-346-R — John Conder — F- 740 S- 247

Commercial fish harvest inventory - Gather accurate data on the entanglement catch by commercial fishermen in Kentucky Lake, Tennessee.

Vermont 3-241-D — George W. LaBar — F- 12,458 S- 12,458

Commercial potential of Vermont fisheries resources - Study the distribution and growth rates of cisco, and the home range and localized movements of eels in Lake Champlain and determine status of aquaculture and the bait-fish industry in Vermont.

West Virginia 3-273-R — Fred Leckie — F- 7,500 S- 2,500

Commercial fishery investigations - Administer and monitor the Ohio River commercial fishery and determine levels of pesticides and complex chemical compounds in commercial fishes.

Wisconsin 3-299-R — Jim McNelly — F- 25,689 S- 8,563

Quota-controlled chub fishery for Wisconsin waters of Lake Michigan - Continue the State's chub assessment program to evaluate changes in the populations to determine allowable harvest.

Wyoming 1-129-R — John Baughman — F- 25,000 S- 8,333

Dynamics and commercial potential of sucker population in western impoundments - Use gill nets, trap nets, purse seines, and shore seines to collect suckers for analysis of age, growth rate, condition, and sexual maturity.

FINFISH (MARINE)

Alewife and herring;

Maine AFC-21 — Clement J. Walton — F- 32,363 S- 32,363

Population biology and management of the alewife (Alosa pseudoharengus) in Maine - Determine population characteristics and monitor catch, escapement, and production levels of the Damariscotta River alewife stock.

North Carolina AFC-17 — Michael Street — F- 6,804 S- 6,804

River herring spawning and water quality in the Chowan River, NC - Determine reproductive success of river herring and assess the influence of water quality changes in the Chowan River.

Virginia/North Carolina AFCS-9 — J.G. Loesch/M.W. Street — Completed 1980

Biology and management of mid-Atlantic anadromous fishes under extended jurisdiction - Emphasize a study of the river herrings to delineate offshore occurrence, inshore spawning and nursery areas, and relative juvenile abundance.

Virginia AFC-10 — Joseph G. Loesch — F- 72,428 S- 72,428

Anadromous fisheries research program, Virginia - To collect catch and effort statistics from the Virginia river herring, American shad, and striped bass fisheries and determine indices of juvenile abundance to update the existing data base.

Washington 1-153-R — Robert Trumble — F- 36,750 S- 12,250

Juan de Fuca herring surveys - Conduct stock assessment surveys in the Strait of Juan de Fuca utilizing hydro-acoustic techniques.

American shad:

Connecticut AFC-12 — Peter Minta, Jr. — F- 29,500 S- 29,500

Connecticut river shad study- - Estimate number of shad entering the Connecticut river and determine survival and food habits of prerecruits.

Georgia AFC-11 — C. Duane Harris — F- 2,406 S- 2,406

Georgia commercial shad assessment - To determine the total commercial landings of shad in Georgia and the catch per unit effort during the 1979-80 commercial shad season.

Maine AFC-20 — Thomas Squiers — F- 31,000 S- 31,000

American shad enhancement - Study adult and juvenile American shad in Kennebec River and tributaries. Also observe size of shortnose sturgeon.

South Carolina AFC-8 — Glenn F. Ulrich — F- 30,509 S- 30,509

Monitoring and assessment of the South Carolina commercial fishery for shad (FY 1980-1981) - Develop catch effort indices of abundance for American shad in major rivers systems; monitor age, sex, and size composition; collect statistics on landings; and do feasibility study of ocean sampling and tagging.

Black Sea Bass:

New York 3-312-R — Alice Webber — F- 10,450 S- 10,450

Black sea bass retention and escapement in vented and unvented pots - Determine the sizes, numbers, and ex-vessel value of black sea bass that escape and that are retained by pots in the pot fishery off Long Island.

Groundfish:

Washington 1-136-R — Jack Lagart — F- 27,786 S- 9,262

Pacific cod, lingcod, rockfish assessment - Collect and analyze stock assessment data from port samplers, fishermen's log books and research cruises for implementing and monitoring the Pacific Fishery Management Council groundfish management plan.

Washington 1-145-R — Mark Pedersen — F- 13,017 S- 4,339

Pacific cod, lingcod, rockfish age determination - Collect information for stock assessment and management data base.

Pacific salmon:

Alaska 5-43-R — John Edgington — F- 75,700 S- 25,300

Assessment of stream habitat and upland development - SE. Alaska - Study salmon stocks and physical characteristics in land use activities with emphasis on streams where logging is planned.

Alaska AFC-57 — Robert L. Burgner — F- 16,800 S- 16,800

Chignik sockeye studies - Determine age of returning Chignik sockeye salmon.

Alaska AFC-59 — Alan P. Kingsbury — F- 81,700 S-119,900

Pink salmon stock prediction - SE. Alaska - Develop techniques and background data for forecast of pink salmon runs for fishery managers, the fishing industry, and fishermen.

Alaska AFC-60 — Fred Bergander — F- 44,300 S- 56,500

Sockeye stock assessment and evaluation, SE. Alaska - Evaluate stock assessments and develop a means of estimating optimum escapements.

Alaska AFC-61 — Kenneth Roberson — F- 48,000 S- 55,200

Copper River - Prince William Sound sockeye salmon catalog and inventory - Evaluate commercial and subsistence catch data, and gather biological data on the salmon runs.

Alaska AFC-62 — Kenneth E. Tarbox — F- 93,000 S-143,300

Investigations of Cook Inlet sockeye salmon - Assess the productivity of sockeye-rearing lakes and determine potential sites for future rehabilitation or enhancement projects to increase sockeye salmon stocks within Cook Inlet.

Alaska AFC-63 — Larry Buklis — F- 52,400 S-201,900

Yukon River salmon studies - Determine magnitude of salmon escapement, distribution, and extent of spawning areas with emphasis on king and chum salmon.

Alaska AFC-64 — Leonard Schwarz — F- 27,100 S- 45,100

Norton Sound - Kotzebue salmon studies - Determine the selectivity of set gill net mesh sizes on salmon species, age, sex, and length.

California AFC-12 Patrick O'Brien F-80,279
S-80,279

Ocean salmon study - Collect landing data on commercial and recreational salmon fisheries. Evaluate effects of management programs on the ocean salmon fisheries.

Idaho 1-143-R Melvin Reingold F- 44,100
S- 14,700

Test rearing of anadromous fish - Evaluate survival, contribution to the fishery, and returns of pond-reared spring chinook on the upper reaches of the Salmon River drainage.

Oregon AFC-92 John P. Harville F- 14,500
S- 14,500

Chinook salmon maturity evaluation - Collect data on stage of maturity, length, and weight of chinook and coho salmon taken by trollers.

Oregon AFC-99 Stephen Lewis F- 34,440
S- 34,440

Management of the troll salmon fishery - Sample coastwide troll salmon landings and tabulate data as required for various State and Federal management programs.

Oregon AFC-100 Dennis Isaac F- 51,620
S- 51,620

Identification of salmon stocks in Oregon - Coordinate and supervise coded wire tagging studies for Oregon programs and operate the tag recovery center at Clackamas, Oregon.

Oregon AFC-102 Jim Lichatowich F-203,650
S-203,650

Research and development of Oregon's coastal fish stocks - Conduct field investigations on fall chinook and coho in the Sixes, Coquille and Elk Rivers.

Washington AFC-79 Duane Phinney F- Completed 1980

Wild chinook salmon tagging and fluorescent marking program - Determine the difference in life histories of spring, summer, and fall wild chinook salmon stocks in the Skagit River and their contribution to the various fisheries.

Washington AFC-84 Gary C. Bailey F- 13,000
S- 13,000

Development of a spawning gravel cleaning machine - Develop a machine for removal of detrimental fine materials in natural salmon spawning beds.

Washington AFC-86 Rick D. Cardwell F- 6,435
S- 6,435

Hood Canal salmon studies - Study chum salmon, their prey and predators, and size of stocks.

Washington AFC-87 Dick O'Connor F- 45,000
S- 45,000

Recover and publish results of coded-wire tags found in Washington's fisheries - Coordinate with other agencies and disseminate their tags and associated information found in Washington's sport and commercial fisheries.

Washington AFC-90 Lloyd Phinney F- 63,550
S- 63,550

Washington ocean salmon comprehensive sampling program - Monitor the commercial and sport fisheries catch at major ports for mark recovery, biological and catch and effort data for State and MFCMA management.

Washington AFC-97 Ernest Salo F- 49,770
S- 49,770

Big Beef Creek chum production assessment - Determine egg-to-fry survival as a measure of spawning gravel cleaning success and continue studies of the role of visual and olfactory cues in species recognition by chum and coho during upstream migration.

Washington AFC-103 Don Seiler F- 43,130
S- 43,130

Freshwater salmon production evaluation - Operate upstream and downstream counting stations on 4 western Washington River systems to measure natural salmon production.

Striped bass:

Alabama AFCS-12 — R. Vernon Minton — F- 44,977 S- 44,977

Striped bass production and stocking experiments in Alabama coastal areas (Study No. 2) To reestablish a striped bass fishery in Alabama by aquaculture and release of fingerlings.

Alabama AFC-13 — Wayne Shell — F- 11,440 S- 11,440

Increasing yield of striped bass fingerlings through intensive culturing methods - Develop diets for larval and postlarval fish and determine disease organisms affecting survival and recommend treatment.

Maryland AFC-11 — F. Douglas Martin — F- 65,797 S- 32,899

Assessment of larval striped bass, Morone saxatilis (Walbaum), stocks in Maryland waters - To estimate striped bass egg and larval distribution and abundance in the Potomac estuary.

Mississippi AFCS-7 — Thomas D. McIlwain — F- 124,060 S- 124,060

Striped bass restoration program - Mississippi Gulf Coast - Stock South Carolina striped bass in the Biloxi Bay system and establish a strain which will use the coastal streams, estuaries, and open Gulf of Mexico waters.

New Jersey AFC-3 — Peter J. Himchak — F- 42,333 S- 21,167

Monitoring of the status of the striped bass population in New Jersey - To determine the spawning and recruitment success of striped bass in the Delaware River.

New York AFC-10 — Byron Young — F- 31,875 S- 31,875

A study of the striped bass in the marine district of New York State #3 - Investigate age, weight, length, and sex structure of the striped bass in New York coastal waters and study year-class production in the Hudson River.

New York AFC-11 — Robert E. Brandt — F- 62,000 S- 31,000

Biology and management of striped bass in New York waters - To provide useful and vitally needed information for development of interim regulations for striped bass conservation and management in state waters.

North Carolina AFC-18 — Scott J. Keefe — F- 26,667 S- 13,333

An investigation of size, age, and sex of North Carolina striped bass - To determine size, age, and sex of striped bass found in the Roanoke River, Albermarle Sound and the Atlantic ocean off North Carolina.

Virginia AFC-11 — George C. Grant — F- 56,766 S- 28,383

Assessment of larval striped bass stocks in Virginia waters - To estimate striped bass egg and larval abundance and distribution in the York River system.

Virginia AFC-12 — Clarence E. Richards — F- 18,000 S- 9,000

Relative recruitment estimates for striped bass from three Virginia rivers - To establish relative numbers of juvenile striped bass and identify cohabitant species in the James, York, and Rappahannock River systems.

Others:

Alabama 2-330-R — Walter Tatum — F-134,200 S- 44,733

Research and management of Alabama coastal fisheries - Project 1: Monitor the abundance of larval, post-larval, juvenile and adult fish, blue crabs and oysters. Project 2: Determine age, growth, condition and migratory patterns of red snapper, spotted seatrout and Florida pompano. Project 3: Determine mariculture potential of such marine species as bull minnows, red drum, spotted seatrout, shrimp and red snapper.

Arkansas 2-317-R — Scott Henderson — F- 0 S- 0

Determine the feasibility of commercial fish production in sewage oxidation lagoons - Determine effect of the quality of domestic waste water on the growth and habits of the fish.

California 4-44-D — Richard Klingbeil — F-160,290 / S- 53,430

Fisheries monitoring, assessment, and evaluation - Survey and sample landings of northern anchovy, Pacific sardine, Pacific mackerel, jack mackerel, and other resources of the southern California bight.

California 4-45-D — Richard Dixon — F-81,366 / S- 27,122

Demersal nearshore commercial invertebrate evaluation - Monitor and assess the condition of the invertebrate resources of commercial value. Includes sea urchins, rock crabs, and abalone.

Florida 2-341-R — Karen Steidinger — F-94,350 / S-31,450

Florida's marine resources research, development, and management program - Project 1: Establish population and catch information for the management of selected marine vertebrate and invertebrate species. Project 2: Establish life history information for the management of marine fisheries. Project 3: Establish and refine aquaculture techniques for spawning and rearing of Macrobrachium.

Louisiana 2-342-R — L. Brandt Savoie — F- 24,000 / S- 8,000

A study of areal and seasonal availability of the American eel at selected sites in southeastern coastal Louisiana - Determine areal availability, seasonal availability, and incidental catch of American eel in eel pots.

Louisiana 2-343-R — Gerald Adkins — F- 55,500 / S- 18,500

An evaluation of gill nets of various mesh sizes - Evaluate the efficiency of mono-and multifilament gill nets of various sizes for capturing important commercial finfish.

Louisiana 2-364-R — Vincent Guillory — F- 31,040 / S- 10,346

A study of Gulf menhaden in Louisiana - Determine species composition, number and weight of incidental catch of fish in the Louisiana Gulf menhaden purse seine fishery and evaluate various external tags for marking Gulf menhaden.

Maryland AFC-10 — C.J. O'Dell — F- 68,300 / S- 68,300

Survey and inventory of anadromous fish spawning areas - To determine which streams in the Patuxent River basin support spawning migrations of anadromous and estuarine fish and to identify species and spawning areas.

Massachusetts 3-287-R — Arnold B. Howe — F-116,992 / S- 38,998

Coastwide fishery resource assessment - Determine species composition and abundance of fish populations in coastal Massachusetts waters.

Mississippi 2-296-R — J. Y. Christmas — F- 79,010 / S- 26,337

Fishery monitoring and assessment - Collect representative samples of shellfish (except oysters) and finfish as they occur in territorial waters each month.

Mississippi 2-325-R — Robin M. Overstreet — F- 52,691 / S- 17,563

Commercial fishes of Mississippi: spawning and miscellaneous biological factors - Determine the season of spawning, size of spawning fish, fecundity, and possible area of spawning for the spotted seatrout and red drum in Mississippi Sound and adjacent waters.

North Carolina 2-324-R — Michael W. Street — F- 4,835 / S- 1,612

Preliminary assessment of nonanadromous fishes in Albemarle Sound - Determine distribution and economic importance of blue crab, catfish, white perch, American eel, and flounder.

North Carolina 2-326-R — Michael W. Street — F- 1,157 S- 1,719

Stock assessment of adult fishes in Core Sound - Obtain biological data on economically important fish stocks.

North Carolina 2-345-R — B. F. Holland, Jr. — F- 18,940 S- 6,313

Net mesh selectivity in North Carolina's winter trawl fishery - Determine mesh size selectivity data from North Carolina's winter trawl fishery.

North Carolina AFCS-15 — Cynthia A. Fischer — Completed 1980

Anadromous fisheries research program, Cape Fear River, Phase II - Determine spawning and nursery areas, growth and movement, and age and size composition of commercial and recreational harvests of anadromous fish.

North Carolina AFCS-16 — Michael W. Street — F-88,241 S-88,241

North Carolina anadromous fisheries management program - Collect, analyze, and report information on North Carolina anadromous fisheries for use in management of the fisheries and eventual preparation of management plans.

Oregon 1-151-R — Robert Demory — F-127,003 S- 42,334

Groundfish and shrimp assessment - Collect and analyze fishery and research data to determine stock size, yield, CPUE and mortality rates.

Puerto Rico 2-333-R — Charles Boardman — F-105,265 S- 35,088

Monitoring and assessment of Puerto Rico's commercial fisheries - Determine seasonal and yearly variation in deepwater demersal fish and spiny lobster.

Rhode Island 3-313-R — Timothy R. Lynch — F- 24,750 S- 8,250

Coastal fishery resource assessment - Design and implement a seasonal bottom trawl survey for the collection of fishery statistical data.

Virgin Islands 2-335-R — Richard A. Dewey — F- 25,000 S- 8,333

Commercial fisheries research and development in the U.S. Virgin Islands - To identify needs and implement management strategies to achieve the optimum sustained use of the Virgin Islands commercial marine fishery resources: Part I: Fisheries statistics of the Virgin Islands - To collect, analyze, and evaluate fisheries statistics in the U.S. Virgin Islands in order to acquaint administrative levels with the real value and extent of Virgin Islands fisheries and so enable enhancement through planning facilities and programs. Part II: Monitoring and assessment of Virgin Islands fisheries - To identify, recommend, and implement commercial fishery management practices for the Virgin Islands marine resources.

Washington AFC-96 — Rick Cardwell — Completed 1980

Salmon-herring predator/competitor interactions - Define the food habits and feeding behavior of salmon, herring, and their predators.

SHELLFISH

Clams:

Kentucky 2-334-R — James B. Sickel — F- 15,875 S- 5,292

Asiatic clam and commercial fishery evaluation - Evaluate the present status and potential of the commercial Asiatic clam fishery and its relationship to the native mussel and teleost fisheries.

Oregon 1-150-R — Thomas Gaumer — F- 31,425 S- 10,475

Commercial clam production - Conduct subtidal bay clam distribution and abundance surveys in Oregon's estuaries.

Crabs:

Alaska 5-44-R — Allen S. Davis — F- 50,000 S- 32,600

King and tanner crab studies in Cook Inlet - Develop a method for assessing annual variation of Cook Inlet king and tanner crab population abundance and relate this abundance to allowable commercial harvest.

Alaska 5-47-R — William Colgate — F- 52,100 S- 78,800

Investigations of life history and fishery for tanner crab in Alaska - Obtain information on distribution, abundance, migration, growth, mortality, and size and age composition of tanner crab stocks in the Kodiak area.

Washington 1-135-R — Tom Northup — F- 30,000 S- 10,000

Coastal dungeness crab project - Sample crab at canneries and landing ports to collect management data.

Lobster:

Maine 3-300-R — James C. Thomas — F- 63,598 S- 63,598

Lobster stock assessment - Survey commercial lobster catch, determine stock-progeny recruitment relationships, and develop lobster management plan.

New York 3-292-R — Philip T. Briggs — Completed 1980

Growth, movement, and mortality of American lobster in western Long Island Sound - Tag and recover American lobsters to determine growth, movement, and mortality.

New York 3-333-R — Philip T. Briggs — F- 18,750 S- 18,750

Movement, mortality rates, and growth of American lobster - Tag and recover American lobsters to determine growth, movement, and mortality.

Rhode Island 3-320-R — Arthur Ganz — F- 7,000 S- 7,000

Evaluation of otter trawl induced losses in the Rhode Island inshore lobster fishery - Continue evaluation of specific types and rates of damage of lobster catches inflicted by commercial otter trawls and document seasonal patterns with special emphasis on the molting period.

Mussels:

Illinois 3-327-R — Richard E. Sparks — F- 49,959 S- 17,281

Effects of three commercial harvesting methods on mussel beds - Determine immediate and long-term effects of harvesting methods on Mississippi River mussel beds.

Ohio 3-318-R — David S. Stansbery — F- 43,500 S- 14,500

Management of Muskingum River mussel populations - Study general composition and distribution of existing mussel fauna, and determine current location and size of mussel beds having commercial potential.

Oysters:

Florida 2-320-D — W. K. Whitfield, Jr. — F- 19,477 S- 9,739

Oyster cultivation by reef construction - Develop techniques to enable oystermen to increase commercial production.

Louisiana 2-353-D — William Perret — F-118,210 S- 39,403

Permanent monument for oyster lease surveying - Place additional water bottom acreage under monument control and establish permanent monuments throughout coastal Louisiana for the purpose of surveying oyster leases.

North Carolina 2-314-R — Michael W. Street — Completed 1980

Use of seed oysters to supplement production in southern North Carolina - Mechanically harvest oysters from slow-growing areas and re-lay them in areas of rapid growth.

Virginia 3-265-R — Dexter S. Haven — F- 0 S- 0

The present and potential productivity of Baylor Grounds - Monitor presence or absence of shell/oysters and the distribution of oyster drills in the tidal waters of Pocomoke Sound, the Eastern Shore, and the James and Potomac Rivers.

Virginia 3-314-D — VMRC Staff — F- 44,888 S- 44,888

Development of oyster resources - Plant oyster cultch to provide an adequate spatfall-collecting medium and monitor success of oyster spatfall and growth.

Washington 1-142-R — Ron Westley — F- 19,500 S- 6,500

Improved techniques for use with domestic oysters - Evaluate the survival, growth, yield, and handling of different sources and types of domestic oyster seed.

Shrimp:

Alaska 5-48-R — Peter B. Jackson — F- 50,000 S- 63,300

Pandalid shrimp studies - western Alaska - Obtain information on the postlarval life histories, distribution, and abundance of the major exploited shrimp stocks in the Kodiak area and determine the effects of fishing on these stocks.

Maine 3-324-R — Alden P. Stickney — Completed 1980

Environmental physiology of northern shrimp (Pandalus borealis) - Determine food particle densities required for survival of larval shrimp, study plankton in the Sheepscot River estuary, and design a low-cost temperature monitoring buoy.

Maine 3-330-R — Daniel F. Schick — F- 2,185 S- 2,185

Shrimp stock assessment - Conduct a summer and winter sampling program to monitor the status of the stock and establish parameters for determining population abundance and appropriate allowable harvests.

Maine 3-341-R — Alden P. Stickney — F- 3,555 S- 3,555

Environmental physiology of northern shrimp - Determine growth and survival dependency upon diatom (Thalassiosira rotula), continue plankton survey in the Sheepscot River estuary and monitor offshore temperatures during fall and winter months.

North Carolina 2-362-R — Michael W. Street — F- 21,000 S- 7,000

Preliminary North Carolina rock shrimp assessment - Obtain data on rock shrimp distribution, relative abundance, size, and sex composition; analyze data; and prepare a manuscript completion report suitable for publication.

Texas 2-328-R — Lynn Benefield — F- 54,000 S- 18,000

Studies of shrimp populations in selected coastal bays of Texas - Determine shrimp movements and abundance in order to recommend shrimp harvest regulations.

Washington 1-154-R — Tom Northup — F- 17,760 S- 5,906

Coastal pink shrimp study - Conduct survey cruises and monitor coastal pink shrimp landings to collect biological information needs for management under the MFCMA.

Others:

Georgia 2-319-R — Henry L. Ansley — F- 82,500 S- 27,500

Studies and assessment of Georgia's fishery resources - Project I: Survey of Georgia's major marine fishery resources - Monitor penaeid shrimp and blue crab populations in coastal Georgia estuaries in order to provide managers with timely information for decisionmaking; and, to increase the data base of knowledge relative to selected aspects of the life histories of Georgia's major coastal finfishes. Project II: Penaeid shrimp migration and growth along the Georgia coast - Determine movement and growth of commercially important penaeid shrimp in estuaries and coastal marine waters along the Georgia coast. Project III: Juvenile penaeid shrimp, blue crab, and finfish assessment in coastal Georgia - To define the major nursery areas in Georgia's estuaries. Project IV: Identification and quantification of spiny lobster populations on the Georgia outer continental shelf - Identify and quantify the spiny lobster population(s) on selected live bottom areas of the Georgia outer continental shelf and determine the feasibility of commercial harvest.

Louisiana 2-318-R — Conrad L. Juneau — F- 35,250 S- 11,750

A survey of the recreational shrimp and finfish harvest of Vermillion Bay and impact on commercial fisheries - Collect statistics on the commercial and recreational fisheries, i.e., boat size, trawling time, gear type, catch, and related biological information.

New Jersey 3-271-R — Thomas McCloy — Completed 1980

Research and inventory of shellfish within estuarine systems - Inventory shellfish in estuaries to determine size of the resources, bottom types, and water chemistry.

New Jersey 3-290-R — Harold H. Haskin — F- 40,304 S- 13,435

Oyster drill control by hydraulic dredging in Delaware Bay - Improve oyster production by reducing losses from oyster drills in controlled areas.

New Jersey 3-332-R — Thomas McCloy — F- 9,265 S- 9,265

Inventory of New Jersey estuarine shellfish - Inventory estuarine shellfish resource and monitor annual recruitment of hard clams and oysters, evaluate efficacy of hard clam re-lay program.

New York 3-307-D — Stephen A. Hendrickson — F- 52,000 S- 52,000

Shellfish transplant in the Marine District of New York State #3 - Transplant shellfish from uncertified to clean water areas for cleansing and market harvesting and introduce spawning stock to selected bays and harbors.

New York 3-308-D — John Hofmann — F- 27,550 S- 27,550

Operation of mobile laboratories for shellfish sanitation control #2 - Make sanitary examinations of shellfish harvest areas and help food inspectors make monthly evaluations of the general sanitation of New York's processing plants.

New York 3-309-R — Richard E. Fox — F- 29,400 S- 29,400

Assessment of New York's shellfish resources - Establish a population index program to measure relative condition of the hard clam resource of Great South Bay and locate shellfish resources by exploratory fishing.

Texas 2-312-R — Terry J. Cody — F- 56,521 S- 18,840

Shrimp and finfish investigations in the northwest Gulf - Study movement and growth of the subject stocks by mark-recapture experiments.

Washington 1-152-R — Tom Northup — F- 18,750 S- 6,250

South coast marine fish/shellfish monitoring - Collect landings and biological data on groundfish, shrimp, and clams for improved resource management.

RESOURCE DISASTER PROJECTS

Alabama 2-351-D — William J. Eckmayer — Completed 1980

Restoration of oyster resources lost in a natural disaster - Help restore oyster resources damaged or destroyed by severe flooding in the spring of 1979.

Louisiana 2-348-D — William S. Perret — Completed 1980

Rehabilitation of natural oyster seed grounds destroyed or damaged by a natural disaster - Help restore oyster resources damaged or destroyed by severe flooding in the spring of 1979.

Mississippi 2-349-D — Richard L. Leard — Completed 1980

Rehabilitation of natural oyster reefs destroyed or damaged by a natural disaster - Help restore oyster resources damaged or destroyed by severe flooding in the spring of 1979.

Texas 2-352-D — Robert Hofstetter — Completed 1980

Rehabilitation of public oyster reefs damaged or destroyed by a natural disaster - Help restore oyster resources damaged or destroyed by severe flooding in the spring of 1979.

STATISTICS

American Samoa 4-47-D — Henry Sesepasara — F- 34,000 S- 0

Statistical analysis of American Samoa - Collection of catch-effort and biological data from foreign longline and domestic fishing vessels.

Arkansas 2-304-R — Scott Henderson — F- 14,773 S- 4,924

Survey and inventory of Arkansas' commercial fisheries - Estimate value of and document changes in fish farming and wild commercial fishery industries.

Connecticut 3-278-R — Robert A. Jones — F- 22,500 S- 7,500

Commercial fishery monitoring program - Monitor catch/effort statistics and certain economic factors of the commercial fishery and provide a data base through computer analysis for the development of management proposals.

Maryland 3-244-D — Howard King — Completed 1980

Fisheries statistics - Maintain statistical data base on oyster, clam, crab, and finfish fisheries for decisionmaking analyses.

Massachusetts 3-194-D — Charles O. Anderson — F- 67,350 S- 22,450

Collection, compilation, evaluation, and dissemination of commercial fisheries statistics - Develop a complete and accurate commercial fisheries statistical program for all phases of the State's varied commercial fishing enterprises.

Missouri 2-291-R — John W. Robinson — Completed 1980

Research and management of Missouri's commercial fishery resources - Compile data from monthly and annual catch of commercial fishermen by gear on the Missouri, Mississippi, and Lower St. Francis Rivers.

Missouri 2-363-R — Dan Dickneite — F- 25,000 S- 8,333

Research and management of Missouri's commercial fisheries resources - Determine the number of commercial fishermen, pounds of fish harvested, and the wholesale value for Missouri's River commercial fisheries. Project I: Missouri's commercial fishery harvest - To determine the number of commercial fishermen, pounds of fish harvested, and the wholesale value for Missouri's river commercial fisheries. Project II: Maintenance, enhancement, and evaluation of commercial fisheries habitat created in the Missouri and Mississippi River through agency coordination - To preserve and enhance Missouri's commercial fisheries by motivating the various construction agencies to preserve and restore fish habitat in future and on-going projects and to assist in evaluating these efforts. Project III: The development of a qualitative system to evaluate Missouri's commercial fish populations - To select population parameters and establish acceptable levels of each which would provide a qualitative method of assessing the status of important commercial fish species populations such as carp, buffalo sp., catfish sp., and freshwater drum in the Missouri River and to determine the most effective sampling methods and techniques to obtain a representative sample for assessing those populations.

Nebraska 2-359-R — Larry A. Witt — F- 9,687 S- 3,229

Population estimates of Missouri River fishes - Use mark-recapture data to estimate populations.

Nebraska 2-360-R — Melvin Taylor — F- 10,402 S- 3,467

Inland commercial fisheries investigations - Monitor activities of the commercial fishermen and collect data from harvested species.

New Hampshire 3-323-D — Thomas W. Woithe — Completed 1980

Statistical data program for marine fisheries of New Hampshire - Develop and implement a catch and effort statistical collection system for the marine fisheries of New Hampshire.

Oklahoma 2-301-R — Harold Namminga — F- 2,495 S- 832

Commercial fishery statistics #2 - Collect and analyze commercial fishery landings statistics from the State's four major industries: commercial fishing, mussel fishery, bait harvest, and fish farming.

Puerto Rico 2-331-R — Jose A. Suarez Caabro — F- 85,043 S- 28,348

Commercial fisheries statistics - Collect and analyze commercial fisheries catch statistics from coastal Puerto Rico.

Rhode Island 3-302-D — Timothy Lynch — F- 15,450 S- 15,450

Lobster logbook and statistical analysis - Use a logbook system in the Rhode Island lobster fishery to acquire catch and effort data necessary for managing the resource.

South Carolina 2-357-R — Dale Theiling — F- 30,000 S- 10,000

South Carolina fisheries statistics program (FY 1980, 1981, 1982) - Collect catch, effort, and economic data of South Carolina's commercial fisheries. Compile, analyze, and provide information to appropriate users.

Texas 2-310-R — Larry McEachron — F-160,603 S- 53,534

Finfish harvesting studies in Texas estuaries - Study statistics and method of capture of commercial species in estuaries.

Texas 2-311-R — Claude Hamilton — F- 28,877 S- 9,625

Commercial fishery catch statistics - Gather, compile, publish, and make available fishery statistics for fish, crab, and oyster landings from the coastal area.

Virginia 3-295-D — William L. Baker — Completed 1980

Virginia commercial fisheries statistics collection and dissemination - Collect, compile, and disseminate fisheries statistics on the commerical catch of finfish and shellfish within State territorial waters.

Virginia 3-335-D — William L. Baker — F- 43,800 S- 14,600

Commercial finfish and shellfish statistical collection - To collect and compile monthly catch data on the Virginia commercial fisheries harvest.

COOPERATORS

State and others	Agency	Address
Alabama	Department of Conservation and Natural Resources	State Administration Building 64 North Union Street Montgomery 36130
	Auburn University, Fisheries Department, Swingle Hall	Auburn 36830
American Samoa	Office of Marine Resources Government of American Samoa	Pago Pago 96799
Alaska	Department of Fish & Game	Subport Building Juneau 99801
Arizona	Game & Fish Department	2222 West Greenway Phoenix 85023
Arkansas	Game & Fish Commission	#2 Natural Resources Drive Markham & I-430 Little Rock 72205
California	Department of Fish & Game The Resources Agency	1416 Ninth Street Sacramento 95814
Colorado	Division of Wildlife	6060 Broadway Denver 80216
Connecticut	Preservation & Conservation Division, Department of Evironmental Protection	State Office Building 165 Capitol Avenue Hartford 06115
Delaware	Department of Natural Resources & Environmental Control	P. O. Box 1401 Dover 19901
Florida	Department of Natural Resources	3900 Commonwealth Boulevard Tallahassee 32303
Georgia	Department of Natural Resources	Trinity-Washington Building 270 Washington Street, SW. Atlanta 30334
Guam	Government of Guam	Agana 96921
Hawaii	Division of Fish & Game Department of Land & Natural Resources	1151 Punchbowl Street Honolulu 96813
Idaho	Fish & Game Department	600 South Walnut, Box 25 Boise 83707
Illinois	Department of Conservation	605 Wm. G. Stratton Building 400 S. Spring Street Springfield 62706
Indiana	Division of Fish & Wildlife Department of Natural Resources	608 State Office Building Indianapolis 46204
Iowa	State Conservation Commission	Wallace State Office Building 9th and Grand Des Moines 50319

Kansas	Fish & Game Commission	Box 54A Rural Route 2 Pratt 67124
Kentucky	Department of Fish & Wildlife Resources	592 East Main Street Frankfort 40601
Louisiana	Department of Wildlife and Fisheries	126 Wildlife and Fisheries Building 400 Royal Street, Room 203A New Orleans 70130
Maine	Department of Marine Resources	State House Annex Augusta 04333
Northern Mariana Islands	Division of Marine Resources	Office of the Governor Saipan 96950
Maryland	Tidewater Administration Department of Natural Resources	Tawes State Office Building Annapolis 21401
Massachusetts	Division of Marine Fisheries Department of Fisheries, Wildlife, and Recreational Vehicles	Leverett Saltonstall Building 100 Cambridge Street Boston 02202
Michigan	Department of Natural Resources	Mason Building Box 30028 Lansing 48909
Minnesota	Division of Fish & Wildlife Department of Natural Resources	300 Centennial Building 658 Cedar Street St. Paul 55155
Mississippi	Department of Wildlife Conservation	Box 451 300 Robert E. Lee Building Jackson 39205
Missouri	Department of Conservation	P.O. Box 180 Jefferson City 65101
Montana	Fish & Game Department	1420 E. Sixth Avenue Helena 59601
Nebraska	Game & Parks Commission	Box 30370 2200 North 33d Street Lincoln 68503
Nevada	Department of Fish & Game	Box 10678 Reno 89520
New Hampshire	Fish & Game Department	34 Bridge Street Concord 03301
New Jersey	Division of Fish, Game & Wildlife, Department of Environmental Protection	Box 1809 Trenton 08625
New Mexico	Department of Game & Fish	State Capitol Building Sante Fe 87501
New York	Division of Marine Resources Department of Environmental Conservation	Building 40, State University of New York Stony Brook 11790
North Carolina	Division of Marine Fisheries Department of Natural Resources and Community Development	Box 769 Morehead City 28557
North Dakota	State Game & Fish Department	2121 Lovett Street Bismarck 58501
Ohio	Division of Wildlife Department of Natural Resources	Fountain Square Columbus 43224

Oklahoma	Department of Wildlife Conservation	1801 North Lincoln Oklahoma City 73105
Oregon	Department of Fish & Wildlife	506 SW. Mill Street Portland 97208
	Pacific Salmon Inter-agency Council	741 State Office Building Portland 97201
	Oregon State University	Corvallis 97331
Pennsylvania	Fish Commission	P.O. Box 1673 Harrisburg 17120
Puerto Rico	Marine Resources Development Corporation	P.O. Box 2629 Old San Juan Station San Juan 00903
Rhode Island	Division of Fish and Wildlife Department of Environmental Management	Washington County Government Center Tower Hill Road Wakefield 02879
South Carolina	Wildlife and Marine Resources Department	P.O. Box 167 Columbia 29202
South Dakota	Department of Game, Fish & Parks	State Office Building No. 1 Pierre 57501
Tennessee	Wildlife Resources Agency	P.O. Box 40747 Ellington Agricultural Center Nashville 37204
Texas	Parks & Wildlife Department	Coastal Fisheries Branch 4200 Smith School Road Austin 78744
Utah	Division of Wildlife Resources State Department of Natural Resources	1596 West North Temple Salt Lake City 84116
Vermont	Fish & Game Department	5 Court Street Montpelier 05602
Virgin Islands	Department of Conservation & Cultural Affairs	P.O. Box 4340 St. Thomas 00801
Virginia	Marine Resources Commission	P.O. Box 756 2401 West Avenue Newport News 23607
	Institute of Marine Science	Gloucester Point 23062
Washington	Department of Fisheries	115 General Administration Building Olympia 98504
	Fisheries Research Institute	University of Washington Seattle 98105
West Virginia	Department of Natural Resources	1800 Washington Street, East Charleston 25305
Wisconsin	Department of Natural Resources	Box 7921 Madison 53707
Wyoming	Game and Fish Department	Box 1589 Cheyenne 82001

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PUBLICATIONS*

In carrying out project activities about 300 State scientists are continuously employed to gather information for better management of the fishery resources and to solve fishery problems. These studies have resulted in 580 publications, of which 492 have appeared in scientific journals and 88 have been for partial fulfillment of the requirement for advanced degrees from educational institutions. The literature citations list the project numbers in parentheses.

Some of the reports are available from the National Technical Information Service (NTIS). NTIS sells these reports as either paper or microfiche copies. Its address is:

National Technical Information Service
U.S. Department of Commerce
Springfield, VA 22151

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CARDWELL, R.D., S.J. OLSEN, M. CARR, and E. SANBORN
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DAVIS, WAYNE L.
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MC EACHRON, LAWRENCE W.
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MURPHY, M. J.
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